

# A METHOD FOR AUTOMATIC SEGMENTATION OF IMAGE DATA FROM MULTIPLE DATA SOURCES

## Abstract

5

A method (300) and apparatus (400) is described for segmenting an image (102). Starting with each pixel of the image (102) being a separate region, segments are formed by merging the regions. As merging proceeds, a merging cost of the regions being merged generally increases. This increase however is not purely monotonic as the overall rise in the merging cost is punctuated by departures from monotonicity. A complete pass is made through the segmentation, in which all regions are merged until only one remains. By analysing the points immediately after significant departures from monotonicity, a final segmentation stopping value ( $\lambda_{stop}$ ) is chosen as being the last return to monotonicity from such a significant departure. Segmentation is repeated until the merging cost reaches the final segmentation stopping value ( $\lambda_{stop}$ ).